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10/002,723	11/16/2001	Vibhor Julka	4740-029	2830

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COATS & BENNETT, PLLC
1400 Crescent Green, Suite 300
Cary, NC 27518

EXAMINER
PEREZ, JULIO R

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 November 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-65</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1- 8, 13-29, 33-46, 50-65</u> is/are rejected.

7)☒ Claim(s) <u>9-12,30-32 and 47-49</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>16 November 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1- 8, 13-29, 33-46, 50-65 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lim et al. (hereinafter Lim), US Patent Number 7,035,636 in view of

Einola et al. (US 20020064144).

Regarding claims 1, 25, 41, Lim discloses a wireless communication network, a

session controller (i.e., location management function), and a method of mobility

comprising: a packet control function (column 4, lines 35-37, a packet control function

may be provided); a plurality of access network controllers connected to the packet

control function for communicating with an access terminal engaged in a communication

session (column 2, lines 61-67; column 4, lines 4-16, several RNCs are provided for

communicating active terminals with RNCs and PDN); and wherein, in response to

transfer of the access terminal from a first one of the access network controllers to a

second one of the access network controllers, the session controller sends the session

information stored in the session controller to the second access network controller, and

to redirect service requests received by a first access network controller from a packet

control function to a second access network controller (column 2, lines 65-67; column 3,

lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28; the

management unit controls the mobility of the active terminal, i.e., 11, from RNC 1 to

RNC2; further providing the information contained from the first RNC to the target RNC),

but is silent on a session controller having memory for storing session information

used by one or more of the access network controllers to communicatively couple the

access terminal to the packet control function during the communication session, and

redirecting service requests received by the first access network controller from the

PCF.

Einola teaches relocation procedure of a user terminal communicating in a

communication network being movable between network controllers and switching the

data from one server to the other during the relocation procedure (Figure 3, #'s 100,

200, 400; Pars. 31, 32, lines 4-11, 38, 40).

It would have been obvious to one skilled in the art at the time of the invention to

modify Lim, such that a session controller provides information to the access controller

in response t session information requests from the access network and redirecting the

service request received by the first network to the second access network, to provide

continuity of communication between the two access network and accurate and efficient

connectivity.

Regarding claim 2, the combination of Lim and Einola discloses, wherein the

transfer is a dormant handoff (Lim, column 4, lines 60-63, transferring the terminal from

one RNC to another RNC is done during a suspended or dormant state).

Regarding claims 3, 26, the combination of Lim and Einola discloses, wherein the

second access network controller queries the session controller for session information

associated with the access terminal responsive to the transfer of the access terminal

from the first access network controller to the second access network controller (Lim,

column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines

1-25; column 6, lines 21-28).

Regarding claims 4, 27, the combination of Lim and Einola discloses, wherein the

session information associated with the access terminal to the second access network

controller responsive to receiving a query from the second access network controller

(Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column

5, lines 1-25; column 6, lines 21-28).

Regarding claim 5, 29, the combination of Lim and Einola discloses, wherein the

first access network controller removes session information for the access terminal

stored in the first access network controller in response to the transfer of the access

terminal from the first access network controller to the second access network controller

(Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column

5, lines 1-25; column 6, lines 21-28).

Regarding claim 6, the combination of Lim and Einola discloses, wherein the first

access network controller removes session information for the access terminal in

response to a cancellation request message from the session controller (Lim, column 2,

lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25;

column 6, lines 21-28).

Regarding claim 7, the combination of Lim and Einola discloses, wherein the

storing in memory routing information indicating which of the plurality of access network

controllers is currently identified with the access terminal by the session controller (Lim,

column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines

1-25; column 6, lines 21-28).

Regarding claims 8, 33, the combination of Lim and Einola discloses, wherein the

session controller updates the routing information in response to the transfer of the

access terminal from the first access network controller to the second access network

controller (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67;

column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 13, the combination of Lim and Einola discloses, wherein the

session controller updates the routing information responsive to a session cancellation

message from an access network controller (Lim, column 2, lines 65-67; column 3, lines

1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claims 14, 34, the combination of Lim and Einola discloses, wherein

the session controller sends a session update message to one or more of the access

network controllers if the session controller detects that the access terminal is not

currently identified with any one of the plurality of access network controllers (Lim,

column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines

1-25; column 6, lines 21-28).

Regarding claim 15, the combination of Lim and Einola discloses, wherein the

access network controllers page the access terminal in response to receipt of the

session update message by the access network controllers (Lim, column 2, lines 65-67;

column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 16, the combination of Lim and Einola discloses, wherein the access network controllers send a session cancellation message to the session controller if the access terminal does not respond to the page within a predetermined time, and wherein the session controller updates the routing information responsive to the session cancellation message (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 17, the combination of Lim and Einola discloses, wherein the packet control function maintains routing information in memory indicating which access network controller is currently identified with the access terminal by the packet control function (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 18, the combination of Lim and Einola discloses, wherein the packet control function updates the routing information when the packet control function receives a connection request associated with the access terminal from one of said plurality of access network controllers (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 19, the combination of Lim and Einola discloses, wherein the packet control function sends a service request to the access network controller currently identified with the access terminal by the packet control function in response to receiving data to be delivered to the access terminal (Lim, column 2, lines 65-67;

column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines

21-28).

Regarding claim 20, the combination of Lim and Einola discloses, wherein the

access network controller receiving the service request from the packet control function

initiates redirection of the service request received from the packet control function if the

access network controller does not have session information associated with the access

terminal (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67;

column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 21, the combination of Lim and Einola discloses, wherein

redirecting the service request comprises: sending a notification from the access

network controller receiving the service request to the session controller; and sending a

connection setup request from the session controller to the access network controller

currently identified with the access terminal by the session controller (Lim, column 2,

lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25;

column 6, lines 21-28).

Regarding claim 22, the combination of Lim and Einola discloses, wherein the

access network controllers are operative to send a connection request to the packet

control function to establish a connection with said packet control function responsive to

receiving a connection setup request from the session controller (Lim, column 2, lines

65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column

6, lines 21-28).

Regarding claims 23, 39, 58, the combination of Lim and Einola discloses, wherein the network comprises an IXEVDO wireless communication network (Lim, column 7, lines 60-62; Figure 2).

Regarding claims 24, 40, 59, the combination of Lim and Einola discloses, wherein the session controller assigns a Universal Access Terminal Identifier to said access terminal (Lim, column 7, lines 60-62).

Regarding claim 36, the combination of Lim and Einola discloses, wherein redirecting service requests sent by the packet control function to a first access network controller comprises: receiving a service request notification from said first access network controller; and sending a connection setup request to the second access network controller, which is currently identified with the access terminal by the session controller (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 37, the combination of Lim and Einola discloses, wherein the session information comprises data connection information associated with a data connection between the access terminal and a packet control function in the wireless communication network (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 38, the combination of Lim and Einola discloses, wherein the data connection information comprises IP address information and network identifier information associated with the access terminal (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 42, the combination of Lim and Einola discloses, further comprising generating the session information request at a second access network controller responsive to the transfer of the access terminal from a first access network controller to the second access network controller, and sending the session information request from the second access network controller to the session controller (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 43, the combination of Lim and Einola discloses, further comprising sending a cancellation request from the session controller to the first access network controller to initiate removal of the session information stored in the first access network controller (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 44, the combination of Lim and Einola discloses, further comprising removing session information associated with the access terminal stored in the first access network controller in response to the cancellation request message (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 45, the combination of Lim and Einola discloses, further comprising storing routing information in the session controller indicating which of the plurality of access network controllers is currently identified with the access terminal by the session controller (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 46, the combination of Lim and Einola discloses, further comprising updating the routing information in response to a transfer of the access terminal from a first access network controller to a second access network controller (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 50, the combination of Lim and Einola discloses, further comprising sending a session cancellation message from an access network controller currently identified with the access terminal to the session controller, and updating the routing information stored in the session controller in response to the session cancellation message (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 51, the combination of Lim and Einola discloses, further comprising sending a session update message from the session controller to one or more of the access network controllers when the session controller detects that the access terminal is not currently identified with any one of the plurality of access network controllers (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28)).

Regarding claim 52, the combination of Lim and Einola discloses, further comprising paging the access terminal by the one or more access network controllers in response to the session update message (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 53, the combination of Lim and Einola discloses, further

comprising sending a session cancellation message from an access network controller

to the session controller if the access network controller does not receive a response

from the access terminal to a paging message sent by the access network controller

(Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column

5, lines 1-25; column 6, lines 21-28).

Regarding claim 54, the combination of Lim and Einola discloses, further

comprising redirecting a service request received by a first access network controller

from a packet control function to a second access network controller (Lim, column 2,

lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25;

column 6, lines 21-28).

Regarding claim 55, the combination of Lim and Einola discloses, wherein

redirecting a service request comprises: sending a service request notification from the

first access network controller to the session controller; and sending a connection setup

request from the session controller to the second access network controller currently,

which is currently identified with the access terminal by the session controller (Lim,

column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines

1-25; column 6, lines 21-28).

Regarding claim 56, the combination of Lim and Einola discloses, further

comprising maintaining routing information at the packet control function indicating

which of the access network controllers is currently identified with the access terminal

by the packet control function (Lim, column 2, lines 65-67; column 3, lines 1-7; column

4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 57, the combination of Lim and Einola discloses, further

comprising updating the routing information when the packet control function receives a

connection identified with the access terminal from an access network controller (Lim,

column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines

1-25; column 6, lines 21-28).

Regarding claim 60, Lim discloses, a method of re-establishing a data connection

between a packet control function and a dormant access terminal that has moved from

a first access network controller to a second access network controller, said method

comprising: sending a service request from the packet control function to the first

access network controller indicated by routing information stores in the packet control

function as being currently identified with said access terminal controller (column 2,

lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25;

column 6, lines 21-28); sending a connection setup request from said session controller

to said second access network controller indicated by routing information stored in said

session controller as being currently identified with said access terminal (column 2, lines

65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column

6, lines 21-28); and sending a connection request from said second access network

controller to said packet control function ((column 2, lines 65-67; column 3, lines 1-7;

column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28), **but is silent**

on sending a service request notification from the first access network controller to a

session controller.

Einola teaches relocation procedure of a user terminal communicating in a

communication network, wherein the terminal is being moved from one network

controller to the other with switching the data from one server to the other during the

relocation procedure (Figure 3, #'s 100, 200, 400; Pars. 31, 32, lines 4-11, 38, 40).

It would have been obvious to one skilled in the art at the time of the invention to

modify Lim, such that sending a service request notification from the first access

network controller to a session controller, to provide continuity of communication

between the two access networks and accurate and efficient connectivity.

Regarding claim 61, the combination of Lim and Einola discloses, wherein said

packet control function updates its routing information to indicate that said second

access network controller is currently identified with the access terminal by the packet

control function in response to receiving the connection request from the second access

network controller function (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4,

lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 62, the combination of Lim and Einola discloses, further

comprising storing session information associated with the dormant access terminal in

the session controller (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines

20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 63, the combination of Lim and Einola discloses, further

comprising sending the session information stored in the session controller to the

second access network controller responsive to the movement of the access terminal

from the first access network controller to the second access network controller (Lim,

column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines

1-25; column 6, lines 21-28).

Regarding claim 64, the combination of Lim and Einola discloses, wherein the

second access network controller sends a session information request to the session

controller in response to the movement of the access terminal from the first access

network controller to the second access network controller, and wherein sending the

session information stored in the session controller to the second access network

controller includes sending the session information stored in the session controller to

the second access network controller responsive to receiving the session information

request by the session controller (Lim, column 2, lines 65-67; column 3, lines 1-7;

column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 65, the combination of Lim and Einola discloses, further

comprising using the session information at the second access network controller to

reestablish a data connection between the access terminal and the packet control

function (Lim, column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67;

column 5, lines 1-25; column 6, lines 21-28).

Response to Arguments

3.   Applicant's arguments with respect to claims 1-8, 13-24, 41-46, 50-65, have been

considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

4.   Claims 9-12, 30-32, 47-49, are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

EXAMINER'S AMENDMENT

5.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with ·

Mr. David E. Bennett on March 21, 2007.

6.   The application has been amended as follows:

IN THE CLAIMS:

Claim 38: on line 1, "of claim 39" has been replaced by -- of claim 37--.

     Claim 39: on line 1, "of claim 39" has been replaced by -- of claim 25 --.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Julio R. Perez whose telephone number is (571) 272-

7846. The examiner can normally be reached on 10:30 - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William G. Trost can be reached on (571) 272-7872. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julio R Perez
Examiner
Art Unit 2617

7/5/07

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600